

Appl. No. 09/834,434

Docket No. 3123-4006**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of producing a plurality of proteins having an activity or property of interest encoded by a library of DNA vectors, wherein the library of vectors comprises a plurality of different vectors, each different vector comprising a different protein-encoding nucleic acid sequence, said nucleic acid sequence being operably linked to an expression-regulating region and optionally a secretion signal encoding sequence, the method comprising the steps of:

- (a) stably transforming a plurality of individual filamentous fungi, wherein the fungi are selected from the group consisting of *Aspergillus*, *Fusarium*, *Chrysosporium*, and *Trichoderma*, said fungi having a phenotype characterized by growth in suspension and by the production of transferable reproductive elements which are monoclonal and readily dispersed in suspension, with said library of DNA vectors so as to introduce into each of the plurality of the individual fungi at least one protein-encoding nucleic acid sequence;
- (b) culturing the transformed mutant filamentous fungi under conditions conducive to formation of transferable reproductive elements which are monoclonal and readily dispersed in suspension;
- (c) separating from one another a plurality of transferable reproductive elements in suspension;
- (d) transferring the separated transferable reproductive elements to secondary cultures; and
- (e) culturing into monoclonal cultures or monoclonal colonies the individual transferable reproductive elements in said secondary cultures, under conditions conducive to expression of the proteins encoded by the protein-encoding nucleic acid sequences.

Appl. No. 09/834,434

Docket No. 3123-4006

2. (previously presented) A method of screening a plurality of proteins encoded by a library of DNA vectors for an activity or property of interest, comprising the steps of:

- (a) producing the plurality of proteins in monoclonal filamentous fungal cultures or monoclonal filamentous fungal colonies, by the method of claim 1; and
- (b) screening individual clonal cultures or clonal colonies for the activity or property of interest.

3. (Original) A method of producing a DNA molecule encoding a protein having an activity or property of interest, comprising the steps of:

- (a) expressing a plurality of proteins in monoclonal filamentous fungal cultures or monoclonal filamentous fungal colonies, by the method of claim 1;
- (b) screening individual clonal cultures or clonal colonies for the activity or property of interest; and
- (c) isolating DNA from a clonal culture or clonal colony exhibiting the activity or property of interest.

4. (Original) A method of producing the nucleotide sequence of a DNA molecule encoding a protein having an activity or property of interest, comprising the steps of:

- (a) isolating DNA from a clonal culture or clonal colony exhibiting the activity or property of interest, by the method of claim 3; and
- (b) sequencing said DNA.

5. (Original) A method of producing the amino acid sequence of a protein having an activity or property of interest, comprising the steps of:

- (a) producing the DNA sequence of the protein having an activity or property of interest, by the method of claim 4; and
- (b) converting said DNA sequence into an amino acid sequence.

6-8. (cancelled)

Appl. No. 09/834,434

Docket No. 3123-4006

9. (previously presented) The method of claim 2, wherein the screening step is carried out by high-throughput screening.

10. (previously presented) The method of claim 3, wherein the screening step is carried out by high-throughput screening.

11. (previously presented) The method of claim 4, wherein the screening step is carried out by high-throughput screening.

12. (previously presented) The method of claim 5, wherein the screening step is carried out by high-throughput screening.

13-48. (cancelled)

49. (currently amended) The method of any one of claims 1-5, wherein the fungus is *Chrysosporium* strain UV18-25 having accession number VKM F-3631 D[[.]]-and ~~decendants~~ thereof.

50. (currently amended) The method of any one of claims 1-5, wherein the fungus is *Chrysosporium lucknowense* strain C1 having accession number VKM F-3500 D[[.]]-and ~~decendants~~ thereof.

51-53. (cancelled)

54. (previously presented) The method of claim 1, wherein steps (b) through (e) are repeated more than once.

55. (new) The method of any one of claims 1-5, wherein the fungi are *Aspergillus*.

56. (new) The method of any one of claims 1-5, wherein the fungi are *Fusarium*.

Appl. No. 09/834,434

Docket No. 3123-4006

57. (new) The method of any one of claims 1-5, wherein the fungi are *Chrysosporium*.

58. (new) The method of any one of claims 1-5, wherein the fungi are *Trichoderma*.